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Application No.: 10/693,052

Docket No.: JCLA9844

#### REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed on September 26, 2006. Reconsideration and allowance of the application and presently pending claims, as amended, are respectfully requested.

## **Present Status of the Application**

- 1. The Office Action rejected claims 1-4 under 35 U.S.C. 102(b) as being anticipated by Kumagai (US patent 6,005,832, hereinafter Kumagai).
- 2. The Office Action rejected claims 7-9 under 35 U.S.C. 102(b) as being anticipated by Yoshida et al.(US Patent 5,764,610, hereinafter Yoshida).
- 3. The Office Action rejected claims 11-13 under 35 U.S.C. 102(b) as being anticipated by Yamada et al. (US Patent 5,831,952, hereinafter Yamada).
- 4. The Office Action rejected claim 5 under 35 U.S.C. 103(a) as being unpatentable over Kumagai in view of Yamamoto et al. (US Publication 2002/0126607, hereinafter Yamamoto).
- 5. The Office Action rejected claim 6 under 35 U.S.C. 103(a) as being unpatentable over Kumagai in view of Yamamoto, further in view of Hira (US Patent 5,381,392, hereinafter Hira).
- 6. The Office Action rejected claim 10 under 35 U.S.C.103(a) as being unpatentable over Yoshida in view of Hira.
  - 7. The Office Action rejected claim 14 under 35 U.S.C 103(a) as being unpatentable over

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Yamada in view of Hira.

8. The Office Action rejected claims 15-18 under 35 U.S.C 103(a) as being unpatentable

over Yamada in view of Kumagai.

9. The Office Action rejected claims 19 and 20 under 35 U.S.C 103(a) as being

unpatentable over Yamada, in view of Yoshida.

Applicant has amended claim 11 by incorporating the limitation of claims 19 and 20 to

overcome the rejections of U.S.C. 102 and U.S.C 103, and then cancelled claims 19 and 20. In

addition, applicant respectfully traverses the rejections addressed to claims 1-18 for at least the

reasons set forth below.

Discussion of the claim rejection under 35 USC 102

(1) The Office Action rejected claims 1-4 under 35 U.S.C. 102(b) as being anticipated by

Kumagai. Applicant respectfully disagrees and traverses the above rejections for at least the

reasons set forth below.

As described in claim 1 of applicant's invention, it reads "(...,) wherein each of transition

regions is defined as an interval between two neighboring ones of the data transition points;".

Referring to the Fig. 17C of Kumagai, the sections 11 and 13 are measured from the disk surface

to the signal surface (approximately 1.2 mm). Similarly, the sections 12 and 14 in Fig. 17E are

measured from another disk surface to another data surface (approximately 0.6mm). It is recited

that "the pulse of the discriminating signal DD obtained at a timing associated with the disc

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surface 105 and the pulse of the discriminating signal DD obtained at a timing associated with the signal surface 102. This measured time is denoted as t1" in column 14, lines 25-29 of Kumagai. Thus, Kumagai teaches a method of discrimination between CD and DVD by different depths from the disc surface to the signal surface but does not teach a method of discrimination between CD and DVD by analyzing the different intervals between two neighboring ones of the data transition points. Therefore, claim 1 is patentable over Kumagai.

Because independent claim 1 is allowable over the prior art of record, its dependent claims 2-4 are allowable as a matter of law, for at least the reason that these dependent claims contain all features/elements/steps of their independent claim 1. In re Fine, 837 F.2d 1071 (Fed. Cir. 1988).

(2) The Office Action rejected claims 7-9 under 35 U.S.C. 102(b) as being anticipated by Yoshida. Applicant respectfully disagrees and traverses the above rejection for at least the reasons set forth below.

As described in claim 7 of applicant's invention, it reads "(...)comparing the clock frequency with a frequency threshold to discriminate a type of the optical storage medium." Yoshida does not suggest discriminating a type of the optical storage medium by comparing the clock frequency with a frequency threshold. Referring to Fig.4 of Yoshida, in step 410, a signal is detected to discriminate a type of the optical storage medium. As found in col. 6, lines 49-64 of Yoshida, it reads that" If the lock detection signal is obtained, i.e. The result is

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YES in Step 410, ....determines that the disc 1 is of the CD format type .....When no lock detection signal is obtained, i.e. The result is NO in Step 410,... determines that the disc 1 is a disc type other." Yoshida discriminates a type of the optical storage medium by means of the lock detection signal and does not discriminate a type of the optical storage medium by comparing the clock frequency with a frequency threshold. Therefore, claim 7 is patentable over Yoshida.

Because independent claim 7 is allowable over the prior art of record, its dependent claims 8 and 9 are allowable as a matter of law, for at least the reason that these dependent claims contain all features/elements/steps of their independent claim 7. In re Fine, 837 F.2d 1071 (Fed. Cir. 1988).

(3) The Office Action rejected claims 11-13 under 35 U.S.C. 102(b) as being anticipated by Yamada. Applicant respectfully disagrees and traverses the above rejections for at least the reasons set forth below.

As described in claim 11, it reads "(...)comparing the obtained distance with a distance threshold to discriminate the optical storage medium(...)". Referring to Fig. 12 of Yamada, after step S4, the DVD format is discriminated at first. Soon after, the CD format is discriminated. However, under the description of claim 11 in applicant's invention, a method of discrimination between CD and DVD at the same time is provided. Therefore, claim 11 is patentable over Yamada. Moreover, to further describe the features of applicant's invention,

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claims 19 and 20 are cancelled, and their technical features are incorporated to claim 11.

Because the amended independent claim 11 is allowable over the prior art of record, its dependent claims 12 and 13 are allowable as a matter of law, for at least the reason that these dependent claims contain all features/elements/steps of their independent claims 11. In re Fine, 837 F.2d 1071 (Fed. Cir. 1988).

## Discussion of the claim rejection under 35 USC 103

(1) The Office Action rejected claim 5 under 35 U.S.C. 103(a) as being unpatentable over Kumagai in view of Yamamoto. The Office Action rejected claim 6 under 35 U.S.C. 103(a) as being unpatentable over Kumagai in view of Yamamoto, further in view of Hira. Applicant respectfully disagrees and traverses the above rejections for at least the reasons set forth below.

Regarding independent claim 1 and its dependent claim 5, applicant provides a method for obtaining the frequency by analyzing the interval between two neighboring ones of the data transition points. On the other hand, Kumagai analyzes the measured time of different data depths between the disk surface to the data surface, and Yamamoto analyzes the frequency of the disk. Thus, the method for analyzing the interval taught by applicant's invention is not disclosed by Kumagai in view of Yamamoto. Therefore, claim 5 is rendered non-obvious and is patentable over Kumagai in view of Yamamoto. Because claim 5 is allowable over the prior art of record, its dependent claim 6 is allowable.

(2) The Office Action rejected claim 10 under 35 U.S.C.103(a) as being unpatentable over

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Yoshida in view of Hira. Applicant respectfully disagrees and traverses the above rejections for at least the reasons set forth below.

Yoshida does not suggest discriminating a type of the optical storage medium by comparing the clock frequency with a frequency threshold. Referring to Fig.4 of Yoshida, in step 410, a signal is detected to discriminate a type of the medium. As found in col. 6, lines 49-64 of Yoshida, it reads that" If the lock detection signal is obtained, i.e. The result is YES in Step 410, ....determines that the disc 1 is of the CD format type ..... When no lock detection signal is obtained, i.e. The result is NO in Step 410,... determines that the disc 1 is a disc type other." Yoshida discriminates a type of the optical storage medium by means of the lock detection signal and does not discriminate a type of the optical storage medium by comparing the clock frequency with a frequency threshold. Otherwise, Hira does not suggest discriminating a type of the optical storage medium by comparing the clock frequency with a frequency threshold. Therefore, claim 10 is rendered non-obvious and is patentable over Yoshida in view of Hira.

(3) The Office Action rejected claim 14 under 35 U.S.C 103(a) as being unpatentable over Yamada, further in view of Hira. Applicant respectfully disagrees and traverses the above rejections for at least the reasons set forth below.

Yamada suggests a method for discriminating DVD and CD at different time. At first, Yamada discriminates the DVD type of the optical storage medium. Then, Yamada discriminates the CD type of the optical storage medium. Hira suggests a method for

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determining if a disk is blank and thus recordable. Thus, Yamada in view of Hira suggests a method to identify the blank DVD and the blank CD at different time. However, claim 14, depending on claim 11, provides a method to discriminate the blank DVD and the blank CD at the same time. Therefore, claim 14 is rendered non-obvious and is patentable over Yamada in view of Hira.

(4) The Office Action rejected claims 15-18 under 35 U.S.C 103(a) as being unpatentable over Yamada in view of Kumagai. Applicant respectfully disagrees and traverses the above rejections for at least the reasons set forth below.

Kumagai analyzes the measured time of different depths from the disc surface to the signal surface, and Yamada suggests a method for discriminating the DVD and CD at different time. However, Yamada and Kumagai do not suggest a method for discriminating the DVD and CD by means of analyzing the interval between two neighboring ones of the data transition points. Therefore, claim 15 is rendered non-obvious and is patentable over Yamada in view of Kumagai. Because independent claim 15 is allowable over the prior art of record, its dependent claim 16-18 are allowable.

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#### CONCLUSION

For at least the foregoing reasons, it is believed that all the pending claims 1-18 of the present application patently define over the prior art and are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the aboveidentified patent application, the Examiner is invited to call the undersigned.

Date: 12/18/2006

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